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# CASES

ILLUSTRATIVE OF

THE BENEFICIAL EFFECTS

OF THE

CLORURETS OF OXIDES OF SODIUM  
AND CALCIUM,

OF THE CHEVALIER LABARRAQUE, OF PARIS:

BEING THE MOST POWERFUL AND EFFECTUAL GENERAL AND LOCAL  
ANTISEPTICS IN THE PRACTICE OF PHYSIC AND SURGERY.

By J. G. F. HASSEL, M. D.

RESIDENT PHYSICIAN AT BOULOGNE-SUR-MER, LATE OF THE BRITISH ARMY.

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TO

SIR JAMES M'GRIGOR, M.D. F.R.S.

*Fellow of the Royal Colleges of Physicians of London and Edinburgh;*

*Director-General of the Army—Medical Department,*

*&c. &c. &c.*

AND TO

SIR WILLIAM FRANKLIN, M.D.

*Principal Inspector of Hospitals,*

*&c. &c. &c.*

GENTLEMEN,

*The kindness which I experienced from you during the time I had the honour to serve under your auspices as a British Medical Officer, has encouraged me to occupy my mind in several useful researches which I hope will tend to the improvement of Medical Knowledge, and to which I have devoted much time, particularly since I held the appointment of Surgeon in the Army.*

*Amidst my occupations, it has been my ambition to pay great attention to the remedies lately proposed by several eminent Medical men practising in various parts of Europe, by which the Healing Art may in time be improved; but, in my humble opinion, amongst the number of modern medicines, there are none more deserving a place in the Pharmacopœia than those powerful antiseptics which have not until now been in general use. The liquids discovered by the celebrated chemist, Labarraque, and which are called after him, by the French, “Liqueurs de Labarraque; or, Chlorures d’Oxyde de Sodium et Chaux.” The former is the most powerful antiseptic which has ever been tried. The Chloruret of Calcium is less so; but at the same time a very useful and cheap remedy, when diluted with water, for purifying, sprinkling, and washing infected rooms and other contagious places, utensils, &c. &c.*

*These remedies have occupied my mind for three or four years, or from the time it came into public notice, having not only seen it repeatedly tried in various French hospitals, and corresponded with several practitioners on the Continent, upon the result of numerous and successful trials which have been made with it by many eminent men of science, but I have myself made several experiments with Labarraque's Chlorurets of Sodium and Calcium, and experienced their peculiar effects both on living and dead animal matter, preserving vitality in the former, and checking the progress of decomposition in the latter ; when, after a few applications of the concentrated Oxide of Sodium, the fœtid, putrified, and noxious effluvia, were completely subdued.*

*Upon these grounds I have taken the liberty to address you on this subject, which I flatter myself will not altogether be unworthy your notice ;*

*hoping that these practical hints, however defective they may be, will sooner or later prove useful to mankind in general, as well as to the vast British empire ; but particularly so to his British Majesty's most valuable and numerous defenders in different regions of the globe, and who are so fortunate as to have their health protected by your most laborious exertions, care, and mature judgment.*

*In order not to encroach too much upon your most valuable time, I shall only state two of the most striking cases wherein I have found Mr. Labarraque's Liquids to produce the most marvellous and beneficial results, and afterward take the liberty of humbly pointing out where I think it may generally prove successful in its application.*

*I have likewise added full instructions for*

*preparing Labarraque's remedies, on the most economical plan, from the last edition of the French Pharmacopœia.*

*I have the honour to be, with the greatest respect,*

*Gentlemen,*

*Your most obedient and very humble Servant,*

J. G. F. HASSEL, M.D.

*Boulogne-sur-mer, April 3, 1827.*



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## CASES,

&c. &c.

CASE 1st. In the month of December, 1824, I was called to Robert Burdett, Esq. of a full habit, aged 60, whose constitution had been much impaired by luxurious living; I found the patient in a high fever, caused by a very painful carbuncle in his neck, about the size of a small plate. A practitioner having mistaken the case for a common Boil, desired the patient to poultice the part for several days; this did not succeed. On my arrival I found no less than seven or eight apertures scattered over the surface of the carbuncle, through which a dark yellow greenish bloody and irritating foetid ichor issued; and in less than twenty-four hours the inflammation had extended upwards over the whole

occipital region, and downwards over all the cervical vertebræ and both scapulæ; the result of which was, a rapid progress to a gangrenous state, and extensive sloughing of the integuments. Finding the patient, on my third visit, in imminent danger, I, without farther delay, made several deep incisions through the apertures and diseased integuments, and after a quantity of dark blood and foetid matter had ouzed out and been washed away with a sponge impregnated with a concentrated infusion of poppy heads, I fomented the affected part for half an hour with equal proportions of the same tepid infusion and Labarraque's Liquid; and with the same mixture I dressed the wounds and sloughy parts. I also ordered the patient to take a draught at bed time, composed of tincture of opium 50 drops, antimonial wine 30 drops, Labarraque's liquid 15 drops, and cinnamon water 1 oz. After these proceedings the patient experienced not only a very comfortable night, but, to my utter astonishment, almost all the gangrenous parts came away with the dressings on the following morning; and after five or six applications more of the same mixture, the ulcer

exhibited a most favourable aspect; a few emollient poultices were now applied, which brought away the remainder of the matter and sloughy cellular substance. The common dressing, due attention to the patient's bowels, and a generous diet, soon filled up the excavations in the neck with healthy granulations, and in less than a month he perfectly recovered.

CASE 2d. In January, 1827, a young woman, named Josephine, aged 25, of a sanguine temperament, was admitted into the Boulogne Civil and Military Hospital, which is superintended by two experienced medical practitioners, namely, Messrs. Gorée and Rouxel, both Doctors of Medicine and Surgery. This patient was afflicted with a sarcomatous Tumour, the size of a large orange, situated on the inside of her left thigh. Dr. Gorée proposed the removal of this tumour by a surgical operation, to which the patient not submitting, she was soon discharged. A few weeks after having quitted the Hospital, she received by accident a blow on this tumour with which she had been afflicted for

upwards of a year; after this accidental excitement the tumour inflamed violently, so much so, that the swelling extended over the whole thigh and knee, which caused great muscular contraction and deformity of the limb. This induced the patient to apply for re-admission into the hospital, where she was again received in the beginning of March. Independent of a proper medical treatment, the tumour was poulticed for several days, after which suppuration took place, a dark coloured foetid matter escaped through a small aperture on the lower part of the tumour about two inches on the inside above the knee; but this natural opening (caused by an increased action in these parts) soon degenerated into a malignant ulcer and sloughing, which made a rapid progress both in the adjacent integuments and deep seated muscles. On the 12th of March Dr. Gorée made a large longitudinal incision through the diseased integuments and fascia, out of which more than two pounds of foetid matter were discharged. The smell of this corrupted ulcer was the most offensive that I ever experienced in practice. The cavity of the wound pre-

sented a most frightful and alarming aspect. It was fomented with a mixture of one part of the Chloruret of Sodium and twelve parts of tepid water, by which the putrid smell was subdued in a few seconds, to the great surprise of the attendants and patients present in the sick ward. The whole cavity of this enormous wound was filled up with fine dry soft French lint, over which two or three ounces of the concentrated Chlorure of Sodium were sprinkled; a large thick compress and bandage completed the dressing, which was saturated with the diluted mixture of the Chloruret in the proportions as above-mentioned. On the following morning the offensive odour of the wound was considerably lessened, and a vast deal of foetid matter was again discharged. To the dressing adhered not only the sloughy integuments, but also a large mass of disorganized cellular substance, muscular fibres, and veins, which came away without much resistance, by hooking it out with the assistance of the finger. This corrupted fleshy mass weighed upwards of a pound. The wound was then treated as before, and the same plan was pursued for several successive

days until all the foetid matter was discharged and the putrid smell entirely subdued. By this treatment the wound was converted into a simple and healthy one about the 18th of March ; a rapid and healthy granulation soon filled up its extensive cavities: the patient's exhausted frame was likewise gradually recruited, and by paying attention to the digestive organs, and prescribing a light but nourishing diet, she soon recovered her strength and general health.

Had such a powerful antiseptic as the Chloruret of Oxide of Sodium been known in the years 1808, 9, and 10, when I was on duty under the orders of Sir William Franklin, in the General Military Hospital, established then in the Jesuit's College at Messina, it would have been a great auxiliary in checking the sloughing process of the very dangerous and extensive venereal ulcers which were then prevailing in the General Hospital in Sicily. I remember having treated cases there of ulcerations after buboes, in which the sloughings extended over the parietes of the abdomen, and the greatest part of the thigh ; and

which only yielded with much difficulty to the best and most expensive antiseptics known at that time ; here the Chloruret of Sodium would have been a most admirable application.



## CASES

*In which LABARRAQUE'S LIQUID may be employed with advantage as one of the best Antiseptics yet discovered for Purifying and Correcting morbid Secretions and fætid Effluvia of Animal Substances.*

1. Sloughy and gangrenous Ulcers in general.

2. To prevent disagreeable and baneful effluvia, from sloughy ulcers, in wounds and amputated limbs after great actions, (such as those at Vittoria, Salamanca, Badajoz, Bayonne, Thoulouse, and others, in which I had the honour to be under the orders of Sir James M'Grigor, where patients were sometimes unavoidably crowded together in hospitals), which effluvia might in a great measure be prevented, by sprinkling the Chlorurets of Sodium diluted over the dressings of the wounds before they are removed

from the patients. This precaution will not only prove beneficial to the wounded, but also to the medical gentlemen, who have frequently to remain some time amongst them.

3. One part of Chloruret of Sodium diluted with twenty-five or thirty parts of water, would make an excellent embrocation for sore backs after severe corporeal punishment, particularly when inflicted in a warm climate, the odour from which, in less than twenty-four hours, very often becomes most disagreeable.

4. The application of Chloruret of Sodium will be found serviceable in all profuse suppurations, and where the quality soon changes its character, so as to produce mischief in the adjacent parts.

5. For correcting the foetid effluvia of cancerous, gangrenous, and other ill-conditioned ulcers. And if the Chloruret be much diluted, it may even be applied with advantage in Polypus and foetid

Uterus, and likewise in Fluor Albus of the worst Ulcers in the species.

6. A judicious application of Sodium will arrest the progress in carious bones, and promote a speedy exfoliation of the decayed and disorganized parts of the bone.

7. It may prove successful in the cure of Tinea Capitis.

8. In Dissecting-Rooms, when the Chloruret is frequently applied to dead bodies, they will be much longer fit for dissection than they otherwise would be, particularly if the veins are at the same time injected with a strong solution of Corrosive Sublimate, as recommended by Professor Leonard, at Lille, who succeeded, by these applications, in preserving a dead subject fit for dissection upwards of a month, in the hottest part of the year. (Vide his note in the French Codex, published by Feé, 1826, page 534.) If the dissector would carefully wash his hands and instruments in the mixture of Sodium,

before he commenced his anatomical researches, and now and then during dissection, a scratch, or cut, (sometimes received in his fingers from the scalpel) would no doubt be less injurious. The dissecting-room may also be kept salubrious and sweet, by sprinkling diluted Chlorure of Oxide and Sodium or Calcium, occasionally over the floor.

9. Among other things, the application of Chlorure of Oxide of Sodium would be of essential service in preserving a corpse much longer from decomposition, and also be of service in neutralizing the noxious effluvia of decomposed animal matter, in the process of embalming.

10. With these preparations, if properly applied, all corrupted animal matter may be rendered harmless: it will therefore prove particularly serviceable in hot climates, not only for correcting the effluvia of bad ulcers, but also in purifying the air when contagious and pestilential diseases are prevalent. It will be most efficacious in neutralizing contagion and disagreeable effluvia in barracks, hospitals,

houses, narrow streets, tents, camps, ships, bedsteads, privies, and night utensils, which are in use amongst the sick, and to purify the air in prisons and other crowded places. This valuable remedy ought particularly to be introduced into those countries where the police is careless, and too indolent to make the inhabitants pay strict attention to cleanliness and salubrity.

11. Chloruret of Oxide of Sodium may be also applied as an efficacious gargle to venereal ulcerations of the mouth and fauces, and even in the malignant sore throat, as well as an ablution in herpetic and several species of cutaneous eruptions, provided the Chloruret be properly diluted, according to circumstances, as, for instance, with from ten, twelve, fifteen, or twenty parts of water, or any other proper fluid. No general rule can be given for this mixture, as it will much depend upon the Chloruret, whether it has been properly prepared or not, therefore great attention and intelligent practical observation must be the only guide in the application of this new and most valuable composition. In very bad gangrenous

and sloughy Ulcers, as, for instance, in *Cynanche Maligna*, I have seen the Chloruret of Sodium applied in its concentrated state with great advantage; with a camel hair pencil moistened well in the Chloruret, the ulcers may be touched two or three times a day, or oftener.

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In Veterinary Surgery these preparations of Chlorurets have been found equally successful, and of great use, not only in neutralizing foetid and putrid effluvia arising from ulcers, with which horses and other quadrupeds are often affected; but even the contagion of the stables wherein sick horses have been treated, has been rendered completely inert by the free use of the Chlorurets, with which not only the horses, but also the stables have been washed: after which the reception of healthy horses in such purified stables has been perfectly safe. In fact, it has been ascertained, that for sprinkling and wash-

ing infected places, walls, &c., the Chlor. Oxid. Calci. may be used instead of Sodium, because that of Calcium may be had at about three pence per pound, and from four to five ounces, diluted with a gallon of hot water, will be sufficiently strong for that purpose.

The warmer the climate is, the stronger the lotions of the Chlorurets should be made, for the purpose of neutralizing effluvia arising from putrid animal matter, and for correcting the air in infected places; all this may be easily managed by active and intelligent observers; and when the application of the Chlorurets of Sodium and Calcium are more extensively known, their superior antiseptic qualities will be found incalculable. I am sensible that this subject might be much more dwelt upon, but still, if hereafter it should pave the way to some happy results in the healing art, I flatter myself that they will then be considered as an important advancement in medical science.



**D I R E C T I O N S**

**FOR MAKING**

**LABARRAQUE'S PREPARATIONS**

**FOR**

**DESTROYING THE NOXIOUS EFFECT**

**OF BAD EFFLUVIA, &c. &c.**

## DIRECTIONS, &c.

### I.—BICHLOR. CALCIS.

Take any quantity of slacked lime, place it in a leaden cylinder, join it to a proper apparatus, which you must place on a sand-bath, to obtain the Chloruretum, connect it to a retort, and to the flasks by tubes, properly disposed, and then proceed with the process. The slacked lime will absorb the Chloruret, and the operation is ended when the whole of the gas has passed into the flasks. Take care to cool the internal surfaces of the cylinder by a current of water, to prevent the formation of Chlor. of Calc., which would otherwise be caused by the elevation of the temperature.

This Bichlor. must be preserved in flasks well stopped.

## II.—SOLUTION OF BICHLOR. CALCIUM;

OR, LABARRAQUE'S LIQUID FOR COUNTERACTING THE  
EFFECTS OF BAD EFFLUVIA.

Take Sub-Bichlor. Calc. eight oz., dissolve it in two pounds of water; filter it and preserve this solution in a bottle, well stopped with a glass stopper, for use when required, either for adding it to a greater quantity of water for ablution, or for inhaling it to counteract Miasmata; or, lastly, for placing linen moistened with this liquid under the nostrils of persons labouring under a temporary suspension of animation. For purifying contagious places of any extent; as, for instance, an amphitheatre; or a room where a putrified dead body lies, it is sufficient to wash the walls and floors with common water, which contains for every twenty-four or thirty pounds two pounds of Bichlor. Calc., which dissolves, as is well known, very easily, but with much greater facility in tepid than in cold water. If judiciously applied, it will soon render the air harmless for respiration. This method has prevailed over that of Guiton Morveau.

## CHLORUR. OXYD. CALC.

Take Quick Lime and slack it in a little water, until it has spontaneously fallen into powder. Mix this damp powder with a twentieth part of Hydrochlorate of Soda, and place it in stone bottles of a cylindrical form, in which the Chloruret is taken up. This gas is separated from a mixture resembling that used for preparing Chlor. Oxyd. Sod. Several apparatus' are placed near one another, as circumstances require, always taking care to let the Chloruret arrive slowly into each; in fact, that the combinations may take place successively. This is necessary for the expected result of the operation. The hydrated lime, when sufficiently charged with Chloruret becomes wet, and by this circumstance the operation is known to be nearly ended. To try the degree of saturation, take one part of the said Chloruret, and divide it in one hundred and thirty parts of water, and this solution ought to discolour three parts and a half of the sulphate of indigo. The Hydrochlorate of Soda, which is added to the Hydrated Lime, has appeared necessary to facilitate the absorption of the Chloruret,

and as this last body alone acts in the process of counteracting noxious effluvia, Mr. Labarraque thought he ought not to omit it, and did therefore not hesitate in giving this communication.

### CHLOR. OXYD. SOD.

Take of pure Carbonated Soda five pounds, distilled water four pounds; mix them, and be sure that the liquid marks twelve degrees on Baumé's Pésesel. If the liquid is too concentrated, which would occasion a chrySTALLIZATION of salt, add to it a quantity of water sufficient to make it of the above-mentioned strength. If, on the contrary, the solution is too weak, add a sufficient quantity of Carbonated Soda. If the carbonated Soda will contain the same quantity of water, it would only be necessary to fix the precise dose; but this salt is far from being always of the same strength. The liquid is placed in a flask, of dimensions sufficient to leave a fourth part empty. Place on a sand bath a retort containing the following Mixture :

Hydrochlorate of Soda, 14 oz. in powder.

Manganese, 4 oz.

Lute to the mouth of the retort a wide bent tube, and a tube in the form of a capital Roman S, (reversed ) to introduce the weakened acid. The first tube is plunged into a flask, containing a small quantity of water; and from this flask, another bent tube proceeds into the saline solution.

The apparatus being properly disposed, and the lute perfectly dry, the weakened acid, when cold and having been mixed for several hours with water, in the following proportions, is poured into the Roman S, (reversed ) tube.

Take Concentrated Sulphuric Acid, fifteen ounces; water one pound, and from two to four ounces. Place fire under the sand bath, and keep it up gradually, till the separation of the Chloruret ceases.

N.B. All these preparations are to be found in the Second Edition of the French Pharmacopœia,

1826, lately translated, revised, corrected, and augmented by Mr. Feé.

The Chlorurets of Sodium and Calcium may be obtained, as made by the Chevalier Labarraque, at the Medical Hall, 170, Piccadilly, London.

Those who wish for further information upon this subject, may peruse, with much advantage, various successful experiments made with Mr. Labarraque's Liquid, by several distinguished practitioners at Paris. These Experiments and Practical Observations have been collected and published by Mr. Labarraque himself, in his treatise, entitled, "De l'emploi des Chlorures d'Oxyde de Sodium et Chaux."

FINIS.

